

neither parallel nor orthogonal forms a 120° angle with respect to each other.

95. (New) The computer readable medium of claim 88, wherein the connection graph is a minimum spanning tree.

96. (New) The computer readable medium of claim 88, wherein the connection graph is a Steiner tree.--

REMARKS

In the Office Action dated December 4, 2002, the Examiner rejected claims 43-64 for statutory double patenting under 35 U.S.C. 101. The Examiner also rejected claims 43-45, 48, 49, 52-57 as being anticipated by USP 5,973,376 issued to Rostoker et al (Rostoker). The Examiner also objected to the specification for its description of Figures 10, 12, 14, 19, 23, 24, and 25, as this description did not mention that each of these drawings appears on two separate sheets.

In this Amendment, Applicants have amended the specification and claims 43-64. Applicants have also added new claims 88-96. Accordingly, claims 43-64 and 88-96 will be pending after entry of this Amendment.

I. Objection To The Description of the Drawings

In the Office Action, the Examiner objected to the description of Figures 10, 12, 14, 19, 23, 24, and 25, as this description did not mention that each of these drawings appears on two separate sheets. In this Amendment, applicants have amended the Brief Description of the drawings to state that each of these drawings appears on two separate sheets. For instance, the brief description of Figure 10 now states: "Figure 10, which is presented on two separate sheets labeled Figure 10A and 10B, ..." The descriptions of Figures 12, 14, 19, 23, 24, and 25 include similar annotations. Applicants respectfully request reconsideration and withdrawal of the objection to the description of the drawings.

II. Double Patenting Rejection

In the Office Action, the Examiner rejected claims 43-64 for statutory double patenting under 35 U.S.C. 101. The Examiner noted that filed claims 43-64 were identical to claims 43-64 in the parent application of the present application.

As filed, claims 43-64 recited methods for placing circuit modules in IC layouts. In this Amendment, Applicants have amended these claims to recite computer readable media that store computer programs for placing circuit modules in IC layouts. In this Amendment, Applicants have also added claims 88-96, which also recite computer readable media that store computer programs for placing circuit modules in IC layouts. Accordingly, Applicants respectfully submit that none of the pending claims claim the same subject matter as the method claims 43-64 of the parent application. Accordingly, Applicants respectfully request reconsideration and withdrawal of the statutory double patenting rejection.

III. Rejection of the Claims Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 43-45, 48, 49, 52-57 as being anticipated by Rostoker. Applicants respectfully submit that Rostoker does not anticipate any of these claims. These claims recite a computer readable medium that stores a computer program, which places circuit modules by constructing a connection graph with at least one edge that is at least partially diagonal. Rostoker does not disclose, teach, or even suggest a placer that places circuit modules by constructing a connection graph with at least one edge that is at least partially diagonal. To clarify this distinction further, Applicants have amended the body of independent claim 43, on which all the § 102 claims depend, to recite "identifying a placement metric based on the connection graph" with the at least one edge that is at least partially diagonal. In view of this amendment and the foregoing remarks, Applicants respectfully request reconsideration and withdrawal of the § 102 rejection.

IV. New Claims 88-96

In this Amendment, Applicants have added new claims 88-96. Each of these claims recites a computer readable medium that stores a computer program, which places circuit modules in an IC layout. This computer program comprises sets of instructions for: (a) identifying a connection graph that models the topology of interconnect lines for connecting a set of circuit elements, where the connection graph has a plurality of edges and at least some of the edges are neither parallel nor orthogonal to each other, and (b) identifying a placement metric based on the connection graph. Applicants respectfully submit that all of the added new claims 88-96 are patentable over Rostoker.

CONCLUSION

In view of the foregoing, it is submitted that the currently pending claims, namely claims 43-64 and 88-96, are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance is earnestly solicited at the earliest possible date.

Respectfully submitted,

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